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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,695	05/21/2002	Yukoh Hiei	0760-0350 P	5501

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EXAMINER

HELMER, GEORGIA L

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/089,695	Applicant(s) HIEI ET AL.	
	Examiner Georgia Helmer	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,14,15,17,18,20,21,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12,14,15,17,18,20,21,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Status of the Claims

1. The Office acknowledges receipt of Applicants' Response; dated 17 March 2006.
2. Claims 1, 3-12, 14, 15, 17, 18, 20, 21, 23 and 24 are pending, and are examined in the instant action.
3. This action is made FINAL.
4. All rejections not addressed below have been withdrawn.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102/103

6. Claims 1, 3-12, 14, 15, 17, 18, 20, 21, 23 and 24 remain rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over by Hansen (WO 98/54961, published 10 December 1998), for reasons of record set forth in the Office Action mailed 21 September 2005, cited in part below.

Applicant traverses primarily that the "Examiner's rejection of the claims relies entirely on the contention that the Eppendorf tube was centrifuged in Hansen". (Response, p. 7). Applicant further says "However, it is widely known to those of ordinary skill in the art that Eppendorf tubes are commonly used reaction vessels for the mixing of all manner of solutions and that Eppendorf tubes are used in the place of ordinary test tubes because of their convenience, disposability and collection of small amounts of liquid into a conical center. Thus, the mere use of an Eppendorf tube does not necessarily or even generally suggest that the Eppendorf tube must be or will be centrifuged."

Applicant's traversal is unpersuasive. The routine and most reasonable use for an Eppendorf centrifuge tube is the tube being used as a centrifuge sample container tube in a centrifuge. While it is true that Eppendorf tubes are convenient reaction vessels in the lab, it is not true that "the use of Eppendorf tubes does not generally suggest that the tube must or will be centrifuged" as Applicant suggests (Response, p. 7).

Applicant further asserts that "Hansen discloses at column 17, line 18, that the sample used is a type I callus of maize. Type I callus of maize is a nonfriable material." Applicant cites *M. Freeling et al in the Maize Handbook, pages 663-664, 1994*.

Applicant continues, "Thus the maize type I callus must be subcultured with a scalpel and forceps. In fact, maize type I callus is hard and dense, such that it immediately sinks in most liquid media. One of ordinary skill in the art of plant cell culture knows that there is no need to centrifuge maize type I callus to separate the cells from the media or to collect maize type I callus."

Applicant's traversal is unpersuasive. The example cited by the Examiner used at least two kinds of maize tissue: immature embryos and type I callus. See "Example 6: Heat Shock treatment..." p. 17-19 of Hansen; p. 17, final ¶ bridging to p. 18. Whereas Hansen does disclose the use of maize type I callus as cited by Applicant, this refers to a different example, Example 5, p. 17, "Transformation of type I callus of maize", which discusses only the maize type I callus tissue. Furthermore, collection of plant tissue (be it callus, embryos or suspension cells) from media is routinely performed using centrifugation of the sample followed by removal (via decanting or other means) of the

Art Unit: 1638

supernatant, and replacement with the desired solution. In this case, the desired solution is the *Agrobacterium* culture.

Claims 8-11 require limitations of centrifugation which has the property of being various rates of centrifugal acceleration 100G to 250,000G. Hansen is silent on centrifugation conditions, other than that an Eppendorf centrifuge is used. The Examiner is unable to determine whether the prior art disclosure possesses the unrecited characteristics or property. With these conditions, where the method seems to be identical except that the prior art is silent to the characteristic or property claimed, then the burden shifts to Applicant to provide evidence that the prior art would neither anticipate nor render obvious the claimed invention. See *In re Best* 195 USPQ 430, 433 (CCPA 1977).

If Hansen does not in fact teach the particular centrifuge speeds recited in claims 8-11, then it would have been obvious to one of ordinary skill in the art to evaluate different centrifuge speeds, in order to optimize process parameters.

Applicant's arguments filed 17 March 2006 have been fully considered but they are not persuasive. Hansen (WO 98/54961) does teach heating and centrifugation of the plant cells prior to gene transfer, on p. 17-19, as explained above.

Accordingly Hansen anticipates the claimed invention.

REMARKS

7. No claims are allowed given the success and suggestions of Hansen.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Georgia L. Helmer whose telephone number is 571-272-0796. The examiner can normally be reached on M-Th, 10:30am-6:30pm.

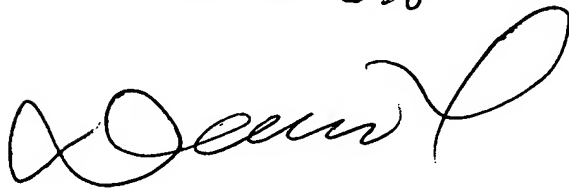
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1638

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Georgia Helmer PhD
Patent Examiner
Art Unit 1638, Transgenic Plants
24 May 2006

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180 1638

A handwritten signature in black ink, appearing to read "David T. Fox", written in a cursive style.